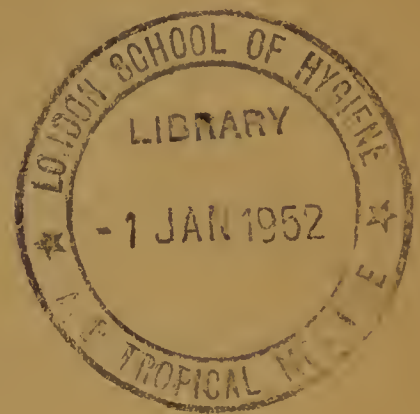


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SWAZILAND



**ANNUAL MEDICAL & SANITARY
REPORT
FOR THE YEAR 1950**

65136



S W A Z I L A N D.

ANNUAL MEDICAL AND SANITARY

REPORT

FOR THE YEAR 1950.

I. ADMINISTRATION.

(a) Staff.

European.

Director of Medical Services
5 Medical Officers.
1 Dispenser, Storekeeper, Radiographer.
2 Hospital Assistants and Dispensers (one post in abeyance)
10 Nursing Sisters (one post vacant).
1 Clerk
1 Lady Clerk and Typist
1 Superintendent Leper Settlement
1 Malaria Medical Officer
1 Health Inspector
1 Laboratory Assistant

African.

1 Senior Hospital Assistant
2 Hospital Assistants
1 Dispenser
35 Nurses
1 Out-Patient Attendant
2 Clerks
2 Ambulance Drivers
2 Dispensary Orderlies
18 Ward Attendants
5 Cooks
1 Office Messenger
3 Hospital Groundsmen
16 Laundresses
1 Seamstress
10 Malaria Assistants
1 Health Office Clerk
1 Lorry Driver
2 Orderlies

Appointments and Changes in European Staff.

Name	Office or Rank	Date of	
		Appointment	Resignation
Major S.W.Hobday, M.B.E.	Dispenser, Storekeeper Radiographer.	1/1/50	-
Miss M.K.Irvine	Nursing Sister	1/1/50	-
Mr.G.J.van Eeden	Health Inspector	3/4/50	-
Miss V.M.Crighton	Nursing Sister	7/10/50	-
Mrs.M.S.Norton-Nowell (nee Burdett)	Nursing Sister	-	6/10/50
Miss O.E.Morriss	Nursing Sister	31/7/50	1/8/50
Miss F. Barnes	Nursing Sister	1/7/50	6/7/50

Reliefs.

Name	Office or Rank	From	To
Dr. D. Drew, O.B.E.	Medical Officer	10. 7.50 23. 9.50 4.10.50 18.12.50	3. 8.50 27. 9.50 15.10.50 31.12.50
Dr. T. Jeppe	Medical Officer	3.8. 50	19.12.50
Dr. E. Schijf	Medical Officer	5. 9.50	31.12.50
Mrs. J.Z. Rayner	Nursing Sister	25. 5.50 10. 7.50	30. 6.50 31. 7.50
Miss C. Harvey	Nursing Sister	14. 8.50	30.10.50
Mrs. M. Baguley	Nursing Sister	8. 8.50	12. 8.50
Mrs. E.Y.C. Osborn	Typist	13.12.50 1. 5. 50	23.12.50 5. 6. 50

Distribution of European Medical and Nursing Staff on 31st December, 1950.

Name	Rank	Station
Dr. J.C.J. Callanan, O.B.E.	Director of Medical Services	On Leave
Dr. H. Flack	Acting Director of Medical Services	Mbabane
Dr. L.E.D.F. Joubert	Medical Officer	Mbabane
Mrs. G.M. Sivewright	Nursing Sister	Mbabane
Miss M.K. Irvine	Nursing Sister	Mbabane
Miss V.M. Crighton	Nursing Sister	Mbabane
Mrs. H. Perkins	Nursing Sister	Mankaiana
Dr. C. Runciman	Medical Officer	Hlatikulu
Dr. O. Arnheim	Medical Officer	On leave
Mr. J.L. van der Vyver	Hospital Assistant Dispenser	On leave
Miss E.H. Overton	Nursing Sister	Hlatikulu
Miss A.D. Killen	Nursing Sister	Hlatikulu
Miss J. Harding	Nursing Sister	Hlatikulu
Miss S. McCorkindale M.B.E.	Nursing Sister	Goedgegun
Miss A. Martin	Nursing Sister	Hluti
Dr. O. Mastbaum	Malaria Medical Officer	Bremersdorp
Miss J. Bredell	Laboratory Assistant	Bremersdorp
Dr. A.E. Batchelor	Medical Officer (Health)	On leave
Mr. G.J. van Eeden	Health Inspector	Bremersdorp
Mr. A.J. Sowden	Superintendent Mbuluzi Leper Hospital	On leave

(b) LEGISLATION AFFECTING THE MEDICAL DEPARTMENT ENACTED DURING THE YEAR.

- (i) Proclamation No. 29 Swaziland Nurses and Midwives (Amendment) Proclamation.
- (ii) High Commissioner's Notice No. 82 (Qualifications required for registration of a nurse or midwife under the High Commission Territories Nursing Council.
- (iii) High Commissioner's Notice No. 83.
(Fees prescribed by the High Commission Territories Nursing Council in respect of registration and examination of nurses and midwives).

(c) FINANCIAL.

Revenue 1950/51

Hospital, Health Centre and other fees	£ 2062-10- 4
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Expenditure.

Personal Emoluments	£29,771-11- 2
Travelling allowance	£ 1626- 4-10
Allowances and fees	£ 134-17-11
Maintenance of patients and purchase of medicines	£ 11,783-6-11
Laboratory Services - South African Institute for Medical Research	£ 200- 0- 0
Maintenance of Lepers	£ 481-11-6
Maintenance of lunatics	£ 1707- 4- 9
Specialist treatment in Union Hospitals for Indigents	£ 2- 0- 6
Hospital Equipment	£ 2067- 8- 1
Uniforms for African Staff	£ 391-17- 4
Vaccination	£ 381-18- 2
Havelock Mine Drug Replacements	£ - - -
Subsidies for Medical Services:-	
Church of the Nazarene Mission of South Africa £2860; Red Cross £38; Roman Catholic Mission (St.Philips) £100; Our Lady of Sorrows School £75;	£ 3073- 0- 0
Anti-malaria measures	£ 561- 0- 0
High Commission Territories Nursing Council, Travelling and other expenses	£ 54- 7- 6
Upkeep of grounds	£ 17- 1- 0
Upkeep of X-ray plant	£ 36-16- 3
Overseas passages	£ 1238-16- 0
Contribution to Orthopaedic Centre for Native Cripples	£ - - -
Anti-malaria Drugs for sale	£ 53- 8-10

£53,582-10- 0

Anti-Malaria and Public Health Campaign Scheme No.D.1084	£ 7932-18- 7
Leper Hospital Scheme No.D.1017	£ 1847-11- 0
Extensions to Mbabane and Hlatikulu Hospitals & African Nurses Home Bremersdorp Scheme No.D.1085	£ 50439- 5- 4
Extension of Medical Services in the Lowveld Scheme No.D.1506	£ - - -

Total Expenditure on Medical and Sanitary Services £113802 - 5- 8

Total Revenue of the Territory £559196 - 0- 0

The relationship of Medical Expenditure (excluding Colonial Development & Welfare Fund Expenditure) to the total Revenue of the Territory 9..58...%

II. PUBLIC HEALTH.

(I). General Diseases.

Venereal diseases, respiratory diseases, Influenza and affections of the skin were the conditions most commonly met with during the year. Investigations are being carried out with a view to locating the endemic goitre areas in the Territory, and the main focus appears to be situated in the region of the Ingwempisi River in the Mankaiana District.

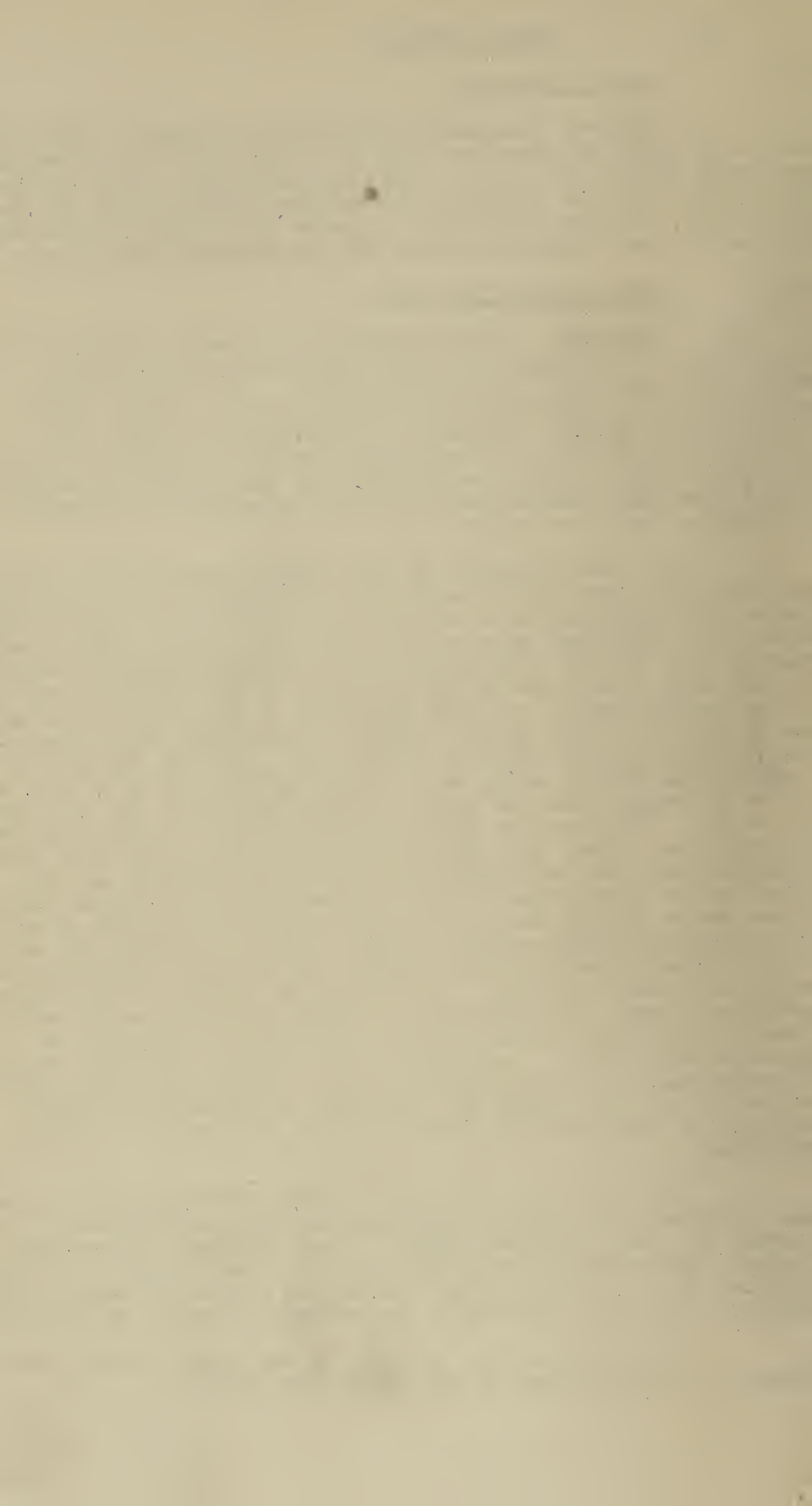
(II). Communicable Diseases.

(i) Malaria. The incidence of malaria in 1950, as indicated by the number of cases treated at the central Hospitals, was 49% less than in 1949. 39% of the cases occurred in the Manzini and Stegi District. Since 1946, and apart from a slight increase in prevalence in 1948, the incidence of malaria in Swaziland has been steadily declining, but this cannot wholly be ascribed to the control measures, as conditions were unfavourable for the breeding of *A.gambiae* during the past two years.

At the beginning of the 1949/50 transmission season, hut spraying operations, which had previously been confined to three relatively small zones of approximately 20 square miles each, were employed over an area of 2,500 square miles comprising almost half of the malarious area of Swaziland, which extended in the bush-veld from the Mpofu River in the North to the Usutu River in the South, and from Ezulwini to Bremersdorp and Mhlanga to the Usutu in the middle veld. 23,000 huts were treated with D.D.T.Emulsion M.25 (D.D.T content 27%), or 50% wettable D.D.T powder, the former being used in the proportion of 1 part to 8 parts of water, and the latter at the rate of 1 lb. to 1 gallon of water. The cost of insecticide amounted to 11½d per hut. In all areas other than the hyperendemic, the effect of these measures has been satisfactory in that no increase in the parasite rate occurred during the transmission season, though there was a marked increase in the unsprayed control areas. In the hyperendemic sprayed areas, malaria transmission was, however, very considerable despite low mosquito densities which never exceeded 0.04 p.h. It is highly probable that anti-adult measures alone, and certainly a single application of residual insecticide, will not reduce the incidence of malaria in hyperendemic areas. As regards the non-hyperendemic areas it is encouraging to note that in certain bush veld areas treated in two successive years the incidence of malaria has been definitely lower than in similar areas treated on a single occasion.

In preparation for the 1950/51 transmission season the spraying of an area containing 30,000 huts has been commenced, and, if funds permit, it is proposed to re-spray in certain hyperendemic areas in the bush veld in which a single application of residual insecticide has failed to reduce the malaria incidence although a low mosquito density was attained.

Cases of malaria treated by the staff of the Malaria Control Unit are shown in the following table:-



1950	Field Staff	Laboratory (x)
January	22	4
February	14	3
March	166	5
April	151	7
May	246	6
June	103	3
July	15	-
August	18	-
September	4	1
October	10	-
November	25	-
December	24	-
TOTAL	798	29
1949	2637	37

(NOTE:- (x) - microscopically diagnosed).

(ii) Smallpox.

In January, Smallpox made its appearance in Chief Macibane Dhlamini's area in the vicinity of Horo, and at Mpondhla, north east of Endingeni, and further outbreaks occurred in the latter area and in the region of Balegane, in June. In all 40 cases with 6 deaths were reported from the Pigg's Peak district, and 8 cases with one death were found in the Manzini-Stegi District. Mass vaccination was undertaken, details of which are given below:

Month	Place	No.vaccinated
January	Native Area 2 (Pigg's Peak)	4580
February	Native Area 4 (Endingeni Mission)	2800
February	Native Area 4 (Mpondhla area)	2703
February	Native Area 23 (Nomahasha)	2012
March	Pigg's Peak	371
March	Native Area 6 (Northern Section)	1487
April	Colonial Development Corporation, Swaziland Irrigation Scheme (Ranches Ltd)	800
May	Staff of Public Works Department, Police, etc Stegi, Goedgegun, Hlatikulu	480
June	Native Area 5	2823
June	Native Area 12	2059
June	Native Area 4	1277
June	Hereford Land Settlement Area	2598
June	Colonial Development Corporation, Swaziland Irrigation Scheme	450
July	Native Area 2	130
July	Native Area 5	3021
July	Bremersdorp Township and Hospital	6466
August	Native Area 11 (Matapha etc)	7906
August	Native Area 12	549
August	Native Area 15	6129
August	Native Area 27	2235
August	Native Area 26	276
August	Native Area 22	447
August	Colonial Development Corporation, Swaziland Irrigation Scheme	235
August	Mankaiana area	10243
	TOTAL	62087

The vaccinations at Nomahasha were carried out by the Portuguese Health Authorities, the vaccine being provided by this Department.

The smallpox outbreak was confined to members of the Zionist Sect, whose adherents' refusal to submit to vaccination impeded the work of the vaccinators to such an extent that it was necessary to make vaccination compulsory for a period in all areas north of the Usutu River and in Native Area 5.

(iii) Bilharziasis.

(Hospital Cases: 70 In-patients
572 Out-patients).

642 cases were treated at hospitals, as compared with 424 and 530 in 1949 and 1948 respectively.

The cases were distributed as follows:-

Manzini-Stegi District	74.9%
Mbabane-Mankaiana-Pigg's Peak District	12.7%
Hlatikulu District	12.3%

Further investigations, involving the examination of 600 children, were carried out by the Health Office staff in the middleveld and lowveld areas with a view to obtaining further data in regard to the incidence and distribution of urinary Schistosomiasis under varying climatic and topographical conditions. As the positive findings were largely based on a single microscopic examination of urine, the incidence of the disease must be regarded as higher than that recorded.

The results of the survey are tabulated below:-

(a) Mafuteni (middle veld).

Age Group	No. Examined	Positive	Suspected cases
1 - 5	31	9	7
6 - 10	60	34	9
11 - 15	32	24	2
Totals	123	67	18

Positive: 54.4%
Probable Incidence: 69.0%

(b) Zombode (High veld).

Age Group	No. Examined	Positive	Suspected cases
1 - 5	19	5	1
6 - 10	54	22	3
11 - 15	70	34	4
Totals	143	61	8

Positive: 42.6%
Probable Incidence: 48.2%

(c) Sipofaneni (Low veld).

Age Group	No. Examined	Positive	Suspected cases
1 - 5	49	1	1
6 - 10	70	5	6
11 - 15	87	10	12
Totals	191	16	19

Positive: 8.3%
Probable Incidence: 18.0%

The comparatively low incidence of Bilharziasis at Sipofaneni is difficult to explain, as conditions in this area are favourable for the dissemination of the disease, and the figures must not be taken as an index of the prevalence of infection in the low veld.

(d) Hluti Eurafrican School (middle veld).

The children in this group were drawn from many parts of Swaziland and the Union, and the figures are, therefore, not representative of the Hluti middle veld area as a whole.

Age Group	No. Examined	Positive	Suspected cases
6 - 10	78	6	5
11 - 15	103	14	2
Totals	181	20	7

Positive: 11.0%
Probable Incidence: 14.0%

The foregoing findings indicate that the incidence of Bilharziasis varies greatly throughout the Territory, and much further work will have to be done before we can obtain an accurate and comprehensive picture of the distribution and intensity of the disease in all districts.

(iv) Tuberculosis.

(Hospital cases: 133 In-patients
263 Out-patients).

396 cases were treated at hospitals, as compared with 281 in 1949, 253 in 1948, 196 in 1947 and 300 in 1946. The percentage distribution of cases in 1950 were as follows:

Manzini and Stegi District	61.3%
Mbabane, Mankaiana and Pigg's Peak District	25.0%
Hlatikulu District	13.6%

Streptomycin and Paraminosalicylic acid has been employed in a limited number of cases. A preliminary Tuberculin Survey of children, which was conducted by the Medical Officer (Health), yielded the following results:-

(a) Mafuteni (middle veld). (Patch Test and 1st strength Tuberculin P.P.D. used).

This group consisted of school children and others living in this area.

Age Group	Number tested		Positive		Negative	
	M	F	M	F	M	F
1 - 5	18	14	6	4	12	10
6 - 10	28	26	15	10	13	16
11 - 15	17	29	9	12	8	17
Totals	63	69	30	26	33	43

Percentage Positive: 42.4

(b) Zombode (Middle veld) (Patch test used). This group was entirely comprised of primary school children, all day scholars living in the vicinity of the school.

Age Group	Number tested		Positive		Negative	
	M	F	M	F	M	F
1 - 5	8	12	4	4	4	8
6 - 10	26	20	12	11	14	9
11 - 15	16	11	6	7	10	4
Totals	50	43	22	22	28	21

Percentage Positive: 47.2

(c) Sipofaneni (Low veld) (Patch test used).

This group consisted of primary school children and others from the area adjoining the schools.

Age Group	Number tested		Positive		Negative	
	M	F	M	F	M	F
1 - 5	50	46	5	7	45	39
6 - 10	34	47	9	19	25	28
11 - 15	40	50	12	14	28	36
Totals	124	143	26	40	98	103

Percentage Positive: 24.7

In this area the positive reactors, mainly in the 1 - 5 age group, were members of a family or came from the same kraal, and in most instances an adult relative had a history suggestive of Tuberculosis.

At one small school, ten out of fifteen children (66.6%) between the ages of 8 and 12 gave a positive reaction. This finding was at variance with the general overall figure, but investigations revealed that the late school teacher had died of Tuberculosis nine months previously.

(d) Hluti Eurafrian Schools (Middle veld).

The figures for the two schools in this series are not comparable with those for African children, as in the former case those examined were derived from places in various parts of the Territory.

Age Group	Patch Test			Mantoux		
	No tested	Positive	Negative	No tested	Positive	Negative
6 - 10	60	11	49	12	-	12
11 - 15	55	11	44	48	7	41
Totals	115	22	93	60	7	53

Patch test, percentage positive: 19.1
Mantoux test, percentage positive: 11.6

Positive reactors tended to occur in family groups, and in two instances one of the parents had been an active case of Tuberculosis.

(e) Mbabane (High veld) (Patch test used).

This series consisted of primary school children derived from the urban and peri-urban areas.

Age Group	Number tested		Positive		Negative	
	M	F	M	F	M	F
6 - 10	14	19	8	8	6	11
11 - 15	15	23	9	13	6	10
Totals	29	42	17	21	12	21

Percentage positive: 53.5%

(f) Hlatikulu (High veld) (Mantoux test used).

Age Group	Number tested		Positive		Negative	
	M	F	M	F	M	F
6 - 10	12	41	5	16	7	25
11 - 15 and over.	37	53	26	34	11	19
Totals	49	94	31	50	18	44

Percentage Positive: 56.6

In this series 37 pupils were over the age of 15, and of these 30 (81%) were positive reactors.

(g) The consolidated figures for all the areas included in this investigation, but omitting Eurafricans, are shown in the following table:

Age Group	Number examined		Positive		Negative	
	M	F	M	F	M	F
1 - 5	76	72	15	15	61	57
6 - 10	114	153	49	64	65	89
11 - 15	125	166	62	80	63	86
Totals	315	391	126	159	189	232

Age Group 1 - 5	20.2% Positive
Age Group 6 - 10	42.3% Positive
Age Group 11- 15	48.7% Positive

As will be seen from the figures given below, the results for the age groups 6-10 and 11-15 bear a close relationship to those obtained by the Chief Tuberculosis Officer for the Union, in 1943.

Swaziland: 1951		Native Reserves (Natal) 1943	
Age Group	% Positive	Age Group	% Positive
6 - 10	42	5 - 9	55
11 - 15	48	10 - 14	45

In the case of Eurafricans there was, however, a great discrepancy between the Swaziland positive figures and those of the Union which were 19.1% (Patch test only) and 48-49% respectively.

The relatively low incidence of positive reactors in the lowveld may be peculiar to the areas in which the tests were conducted, which may not necessarily be representative of the area as a whole, but the bushveld population is scattered and the children were less exposed to the risk of infection than those who formed the subject of this investigation in the high and middle veld, where those tested lived under conditions which approximated more closely to those existing in peri-urban areas.

The scope of this preliminary investigation is to be extended preparatory to the formulation of a scheme for the control of Tuberculosis in this Territory.

(v) Dysentery.

(Hospital cases: 246 In-Patients
596 Out-Patients).

The incidence of this disease was 50.8% greater than in 1949, and the distribution of cases was as follows:

Mbabane, Pigg's Peak and Mankaiana District	47.8%
Manzini, Stegi District	34.9%
Hlatikulu District	17.2%

The relative frequency of the disease in its various forms is given below, the figures for the previous year being shown in brackets.

Amoebic Dysentery	37.0%	(26.3%)
Bacillary Dysentery	51.3%	(70.6%)
Undifferentiated	11.6%	(3.0%)

(vi) Diarrhoea and Enteritis.

Hospital Cases	((a) Under 2 years	138 In-patients
	(	987 Out-patients
	((b) Over 2 years	69 In-Patients
	(	646 Out-patients

The incidence of these diseases increased by 43.2% as compared with the previous year, but their distribution, as shown below, was similar:

Manzini-Stegi District	44.1%
Mbabane-Pigg's Peak-Mankaiana District	31.0%
H latikulu District	24.2%

(vii) Venereal Diseases.

Figures relating to the cases treated are given in the following table:-

Disease		Mbabane Hospital	Mankaiana Cottage Hospital	Other Health Centres Mbabane-Figgs Peak-Mankaiana District (Northern District)	Hlatikulu Hospital	Health Centres Hlatikulu District (Southern District)	Raleigh Fitkin Memorial Hospital	Health Centres Manzini-Stegi District (Central District)	TOTAL
I. <u>SYPHILIS:</u>									
(A) Early Syphilis	(i) Primary	71	15		48		63		197
	(ii) Secondary	409	184		87		282		962
	(iii) Early latent (Asymptomatic)	159	23		99		-		281
B) Late Syphilis Tertiary	(i) Skin, Mucosal bone, muscle, joint.	5	-		1		-		6
	(ii) Cardiovascular	-	1		-		-		1
	(iii) Neurosyphilis	-	1		-		-		1
	(iv) Late latent (Asymptomatic)	22	-		-		-		22
(C) Congenital									
	(i) Early (under 2 years of age)	126	38		15		49		228
	(ii) Late (over 2 years of age)	-	27		2		-		29
D. Undifferentiated		-	-	475	-	874	-	1064	2413
Total		792	289	475	252	874	394	1064	4140
II. <u>GONORRHOEA</u>									
	(i) Acute	768	73	1	96		246	-	1183
	(ii) Chronic	-	7	81	1	355	-	134	570
Total		768	80	81	97	355	246	134	1761
III. <u>OTHER VENEREAL DISEASES.</u>		13	3	-	2	2	5	-	25
IV. <u>RE-ATTENDANCES.</u>									
Syphilis		5087	1603	738	1310	3886	1978	3563	18165
Gonorrhoea		873	-	33	107	357	121	39	1530
Other Venereal Diseases		-	6	-	6	-	1	-	13
Total Re-attendances		5960	1609	771	1423	4243	2100	3602	19708

The total number of cases of venereal disease treated in 1950 exceeded that of the previous year by 2.5%, and though the incidence of syphilis throughout the Territory declined by 6.9%, an increase of 35.8% took place in the case of Gonorrhoea. The trends in the prevalence of venereal diseases at various centres since 1949 may be gauged from the figures given below:

	Syphilis		Gonorrhoea	
	Increase	Decrease	Increase	Decrease
Mbabane	22.4%	-	41.6%	-
Mankaiana	-	39.6%	-	15.7%
Mbabane-Pigg's Peak District	38.8%	-	5.3%	-
Hlatikulu	-	21.0%	-	3.9%
Hlatikulu District (General)	-	10.1%	34.9%	-
Goedgegun	-	46.3%	4.4%	-
Bremersdorp	12.5%	-	56.6%	-
Manzini-Stegi District (Gen)	-	14.8%	111.1%	-
Stegi	-	29.8%	114.2%	-
				(Since 1948)

37.1% of the sera (6433) examined by the "Eagle" Flocculation Test at the Public Health Laboratory, Bremersdorp, gave positive or doubtful reactions, but as the blood specimens were derived from Africans attending Hospitals and Health Centres, the figure is not indicative of the incidence of syphilis amongst the populations as a whole.

(viii) Leprosy.

The staff of the Mbuluzi Leper Hospital consisted of a Medical Superintendent (non-resident), a Lay Superintendent (resident), an European Matron, an Educationalist, a Nurse, Teacher, Chaplain, Handyman, and four labourers.

The Medical Superintendent visited the Hospital at fortnightly intervals. The Lay Superintendent proceeded on overseas leave in June, and his duties devolved upon the Matron during his absence.

The number of in-patients on the 31st December was 78, i.e. 38 adult males, 32 adult females, 3 male and 5 female children, as against 75 at the close of 1949.

Health of Patients.

The general health of the patients has been good throughout the year, apart from the effect of the disease itself, and there has been a steady improvement in the leprotic manifestations. Nine cases of Lepra reaction occurred, two of which, in female cases, were severe. The mental outlook of the patients was much more encouraging than in the past, the improvement being due to the satisfactory response to the sulphone drugs, and the personal interest and care bestowed on them by the hospital staff, and members of voluntary organisations.

Additions to Population.

	Males	Females	Total
Admissions	6	14	20
Re-admissions	-	-	-
Deserters	2	1	2
	8	15	22

Losses in Population.

	Males	Females	Total
Deaths	-	2	2
Desertions	2	-	2
Discharges	7	8	15
	9	10	19

Origin of Patients Admitted.

District	Males	Females	Total
Mbabane	5	6	11
Mankafana	-	1	1
Bremersdorp	1	2	3
Stegi	-	-	-
Pigg's Peak	-	2	2
Hlatikulu	1	2	3
Transvaal	1	1	2
	8	14	22

Duration of Disease before Admission.

Duration	Admissions	Percentage
0 - 1 years	4	18.1
1 - 2 years	3	13.6
2 - 3 years	1	4.5
3 - 4 years	1	4.5
4 - 5 years	3	13.6
Over 5 years	10	45.4

Classification on Admission.

Classification	Admissions	Percentage
Lepromatous	6	27.2
Neural	15	68.1
Mixed	1	4.5

The following Table gives the type of the disease in the case of the 78 patients under treatment:

Type	Male	Female	Total	Percentage
Lepromatous	13	6	19	24.3
Neural	17	29	46	58.9
Mixed	10	3	13	16.6
Totals	40	38	78	

Average age on admission: 34.1 years

Proportion of children to total admissions.

There were 5 admissions of children under 16 years of age (22.7%), as compared with 7 (17.5%) during 1949.

Treatment (General).

There were 16,475 attendances at the Dispensary. The following list gives the causes of admission to the Hospital wards:-

Lepra reaction	9
Trophic ulcers	6
Arthritis	5
Observation	4
Influenza	2
Pneumonia	2
Pregnancy	1
New born	1
Conjunctivitis	1
Elephantiasis	1
Ulcer of penis	1
Papilloma of vulva	1
Blindness	1
	<u>35</u> (1,565 In-patient days).

Anti-Leprotic treatment.

(a) Chaulmoogra oil. For the first six months of the year Neural cases received bi-weekly intradermal injections of a 50% mixture of oleum Hydrocarpii in peanut oil, and thereafter only one case continued to receive this form of therapy.

Number of injection days	95
Number of attendances	2156
Number of patients treated (January-June)	59
Number of patients treated (July-December)	1

(b) Sulphetrone. This treatment was also discontinued in July, except in the case of one patient who received intramuscular injections once weekly thereafter.

Number of patients receiving Sulphetrone orally	31
Number of patients receiving Sulphetrone intramuscularly	1
Number of intramuscular injections administered	562

(c) Diamino-diphenyl sulphone (D.A.D.P.S)

This treatment was introduced in June, when other lines of treatment were almost entirely abandoned. The dosage ranged from 0.1 to 0.3 gm daily, and the drug was administered orally to both lepromatous and tuberculoid cases, concurrently with Bland's pills and yeast tablets. There has been a steady and sustained improvement in the conditions of 69 patients receiving this form of therapy, in connection with which 10557 attendances were recorded. Skin smears from these cases show a diminution in the number of M.leprae in the tissues, and the organisms exhibited evidence of degenerative changes.

Laboratory Examinations.

120 smears (883 in 1949) were examined for the presence of *Microbacterium leprae* (*Bacillus leprae*) with the following results:-

	Positive		Negative		Total
	Nasal	Skin	Nasal	Skin	
Lepromatous	33	36	4	1	74
Mixed	2	1	1	2	6
Neural	-	1	20	19	40

Leprosy Survey.

Survey work was suspended owing to the absence on leave of the Lay Superintendent.

Welfare.

The help afforded by the Mbabane Branch of the Girl Guide Association in running a Guide Group is greatly appreciated, as also is that of the Mbabane Branch of the British Red Cross Society, which sent ladies to the hospital each week to give instruction in various forms of occupational therapy. The interest shown by the members of these organisations, and the assistance which they have given have greatly contributed to the improvement which has taken place in the patients morale, and this has been a factor of the utmost importance in aiding the response to treatment.

(ix) Typhoid and Paratyphoid Fever.

37 cases were treated at Government Hospitals in the Mbabane-Pigg's Peak-Mankaiana (14) and Hlatikulu (23) Districts and only one death occurred as compared with a total of 41 cases and four deaths in 1949. The reduction in the mortality rate is due to the use of Chloromycetin in selected cases. In May, seven cases of Enteric occurred at the Mbuluzi Girls School, and 252 contacts were inoculated.

A serious outbreak of Typhoid Fever occurred at a boarding school at Mhlotsheni in October, sixteen cases being initially detected. 200 contacts received preventive inoculations, and as the spread of the disease had resulted from overcrowding and general insanitary conditions the school was closed until these defects were rectified. With these exceptions, the disease was of a sporadic character, the case distribution being as follows:

District	Cases	Deaths
Mbabane-Pigg's Peak and Mankaiana District	20	1
Manzini-Stegi District	16	2
Hlatikulu District	23	-

In contradistinction to the Mbabane District, in which the disease was most prevalent in May, the majority of the cases in the Manzini and Hlatikulu Districts were reported during the last quarter of the year.

(x) Diphtheria.

23, cases, of which ten occurred in the Manzini

District, and thirteen in the Mbabane District, with a total of three deaths, were reported during the year.

(xi) Whooping Cough.

The number of cases notified is given in the following Table:

District	No. of cases	Deaths
Hlatikulu District	52	1
Manzini-Stegi District	39	1
Mbabane-Pigg's Peak-Mankaiana District	424	1
	515	3

In all areas the disease was particularly prevalent during the first six months of the year, and thereafter its incidence steadily diminished.

(xii) Acute Poliomyelitis.

No cases were reported during the year.

(xiii) Measles.

This disease was far less common than in previous years, and the majority of the cases were observed during the second quarter of the year. The case distribution was as follows:-

Mbabane-Pigg's Peak-Mankaiana Districts	42
Hlatikulu District	32
Manzini-Stegi Districts	12
	<u>86</u>

(xiv) Chicken-pox.

85 cases were reported as compared with 52 in 1950, and the bulk of the cases occurred in the Mbabane area, during July and August.

(xv) Relapsing Fever.

No cases were detected during the year.

(xvi) Tick Typhus.

This disease was less commonly met with than in the previous year. 9 cases occurred in the Manzini area and 7 in the neighbourhood of Mbabane. As in the previous year, the majority of infections were acquired in April and December.

(xvii) Influenza.

An epidemic of this disease occurred at the Havelock Mine in the first week of August, and swiftly spread to Mbabane and from thence to Bremersdorp and Hlatikulu, its peak being reached on the 19th August at the Mine, and on the 9th September in all other areas. The incidence of the disease had resumed its normal level by the end of September. In the Union there appeared to be two waves of the epidemic, one in June-July and one in August-September, but this was not the case in this Territory. Infectivity was not marked, mortality

was negligible, but post-influenzal depression was pronounced. The incidence of the disease was greatest in the vicinity of Mbabane and the Lobamba area.

The distribution of reported cases was as follows:-

Mbabane-Pigg's Peak-Mankaiana District	945
Havelock Mine	202
Hlatikulu District	387
Manzini-Stegi District	321
	<u>1855</u>

(xviii) Cerebrospinal Meningitis.

Fifteen sporadic cases were notified from the following areas:

Havelock Mine	10
Bremersdorp	3 (2 deaths)
Mbabane	2

Vital Statistics.

The figures for the 1946 Census are given below:-

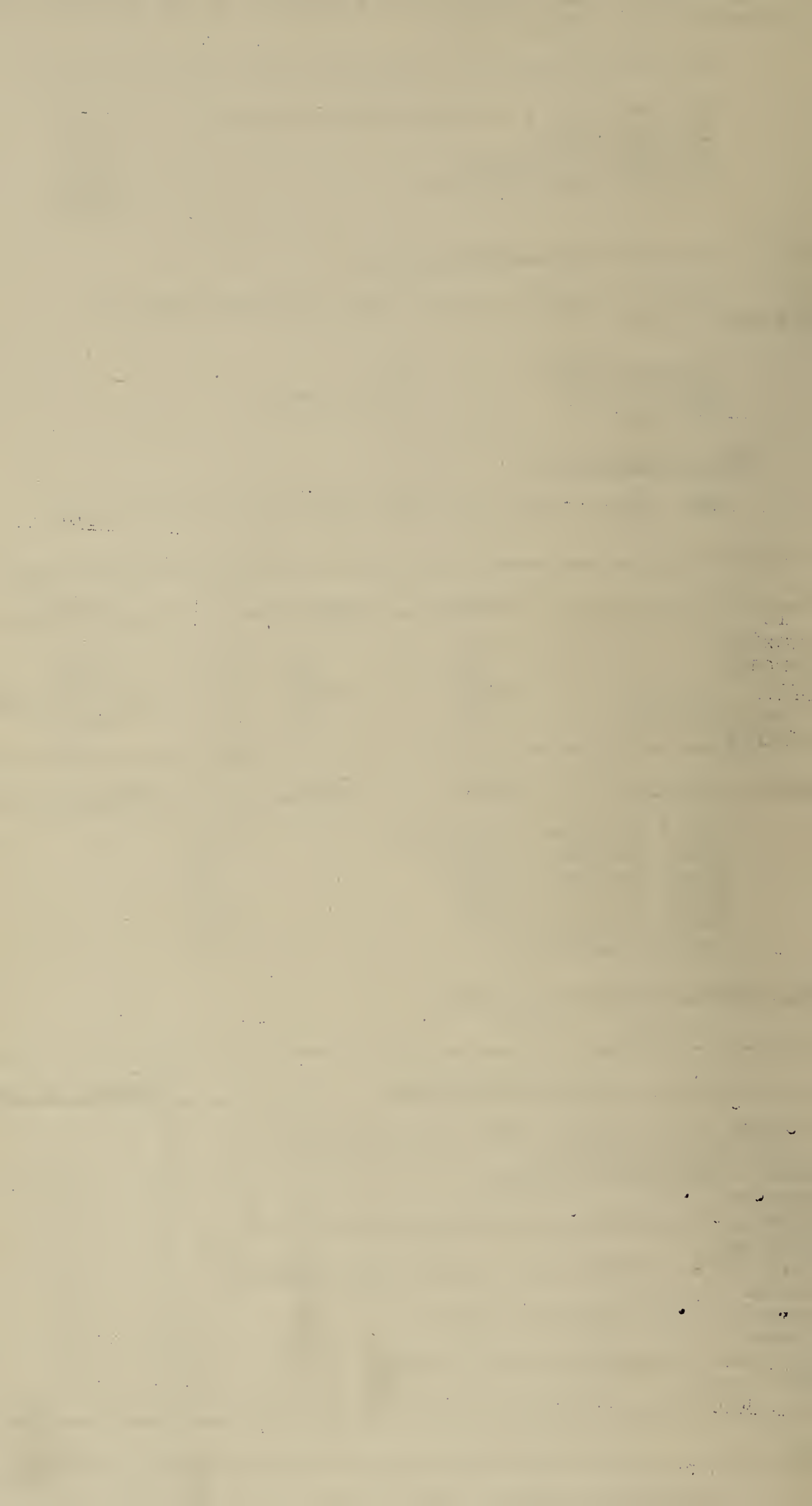
	Males	Females	Total
Europeans	1727	1474	3201
Coloured	359	380	739
Swazis	91014	87617	178,631)
Foreign Natives	2371	267	2638)
Asiatics	5	1	6
<u>Total</u>	<u>95476</u>	<u>89739</u>	<u>185,215</u>

Total European Population	3201
Total European Births	81
Total European Deaths	22
Birth rate per 1000	25.2
Death rate per 1000	6.8
Infant mortality	24.6

Table showing causes of Death.

Causes of Death	Number of Deaths
Diseases of the heart, and other diseases of the Circulatory System	6
Cancer - malignant disease	3
Pneumonia	2
Violence (all forms, including injuries and accidents)	2
Tuberculosis (other than Respiratory System)	1
Malaria	1
Diseases of the Digestive System	1
Toxaemia	1
Congenital Deformity of the Brain	1
Other causes	4
<u>Total</u>	<u>22</u>

Registration is not compulsory in the case of the Non-European population.



III. HYGIENE AND SANITATION.

A. (i) Preventative Measures.

(a) Malaria. Control measures in rural areas have been greatly extended, and the results have been highly beneficial to the community, not only on account of their effect on the incidence of malaria but also by reason of the destruction of flies and other disease vectors. The introduction of routine hut-spraying operations in the malarious areas of the Hlatikulu District, and the re-spraying of hyperendemic areas during the 1951/52 transmission season is dependent on the provision of additional funds, in view of the rising cost of labour and materials. Arrangements were made for the purchase of Proguanil and other anti-malaria drugs for re-sale to the public.

(b) Smallpox. Consequent on outbreaks of smallpox in the Pigg's Peak and Manzini-Stegi Districts, a number of lay vaccinators were engaged, and with the assistance of the Administration and the Swaziland Police vaccination centres were established. 62087 persons were vaccinated during the course of the campaign. Arrangements are being made for mass vaccination in the Hlatikulu District in 1951, as the vaccinal state of the population in that area is low and requires to be augmented.

(c) Enteric Fever. Following on a small outbreak of Typhoid in the Msunduzi Township during the previous year, four automatic flushing latrines were erected for the use of the public, but a further extension of this system, and the efficient operation of the latrines already provided, has been prevented by the absence of a proper water supply in Mbabane. This deficiency is a constant source of anxiety to the health authorities, personal prophylaxis being the sole barrier against water-borne infections. All reported cases of Typhoid were investigated and measures were taken in each instance to prevent the spread of infection. A large number of persons received prophylactic inoculations.

(d) Diphtheria and Whooping Cough. Immunization of children against these diseases was carried out on an increased scale.

(ii) General measures of Sanitation.

(a) The post of Medical Officer (Health) was created in February, and a Health Inspector was appointed in April.

(b) Water Supplies. Bacteriological analyses of the treated water supplies at Bremersdorp, Hlatikulu, Goedgegun and Stegi were carried out at regular intervals, and with the aid of a Chlorotex outfit the Department has been in a position to advise Local Authorities and the Public Works Department regarding the standard of chlorination. An automatic chlorination unit has been installed in connection with the water supply to a section of the Mbabane township, and similar units will be provided at Bremersdorp, Goedgegun and Stegi in 1951. A new water supply for Goedgegun is under construction.

(c) Conservancy and Refuse Disposal. A detailed system for these essential services was prepared and submitted to District Commissioners, but owing to lack of financial resources certain Local Authorities are finding it difficult to comply with the requirements of this Department.

(d) Drainage. During house to house inspections it was observed that one of the main sources of nuisances was

defective drains, and a circular letter, indicating the measures necessary to rectify existing conditions, was addressed to all house-holders in the urban areas of Goedgegun, Bremersdorp and Mbabane. Routine inspections of these premises is now being carried out.

(iii) School Hygiene. The systematic inspection of schools throughout the Territory has been commenced. Health conditions at various schools have been investigated and the Principals have been advised regarding sanitation and other health requirements.

The pupils at St. Marks School, the Trades School, Mbabane, and the Swazi National School, Matapha, were medically examined at the beginning of each term. The latter school was visited by Medical Officers on twelve occasions, and there were 1696 attendances at the School Clinic.

(iv) Labour Conditions. Slow but sustained improvement has been noted in this field.

(v) Buildings. Proposals have been submitted to Local Authorities with the object of attaining uniformity in the form and method of presentation of building plans, and the introduction of legislation governing the construction and use of buildings and their appurtenances, in urban areas, has been recommended. 22 plans were examined at the Health Office, and 14 at Medical Headquarters. The improvement in the standard of housing for Europeans and Africans is being maintained, and a number of new buildings have been erected in various parts of the Territory. Ten type houses for European Government officials have been built in the following situations, certain improvements having been effected in the design; Mbabane 4, Bremersdorp 3, Goedgegun 2, Hlatikulu 1. Five improved type houses were constructed for the use of African staff, but this section of the building programme was curtailed pending a decision being reached regarding modifications in design.

(vi) Food in relation to Health and Disease.

(a) Trade Premises. Routine inspections of trade premises were carried out in all urban areas, and owners and occupiers were called upon to comply with certain sanitary requirements. No legal proceedings were instituted, as it was considered that in the initial stages of the Public Health Campaign, an attempt should be made to attain as much progress as possible by means of advice and persuasion. An endeavour is being made to regularize the health control of trade premises, and in this connection Local Authorities are being encouraged to refer all applications to this Department before licences for new trade premises are granted.

The following foodstuffs were condemned as unfit for human consumption, and destroyed:-

246 tins of meat, fish and canned fruit.
25 lbs. of icing sugar (soiled).
15 boxes of oats (soiled by rats).

(b) Meat Supplies. With the assistance of the Veterinary Department, a regular system of meat inspection was instituted at Mbabane and Bremersdorp, with effect from 1st July 1950, and this service will be extended to Stegi, Goedgegun and Hlatikulu, as soon as the abattoirs now under construction at these stations are completed.

The following are the figures for meat inspection carried out by the Health Inspector and Stock Inspectors during the period 1st July-31st December 1950:

Station	Cattle	Sheep	Pigs	Cattle carcasses detained for measles.	
				Destroyed	Passed after treatment
Mbabane	493	209	83	17	7
Bremersdorp	480	50	54	16	25
	973	259	137	33	32

Incidence of measles 6.7%

The installation of a deep freezing plant at Bremersdorp, for the treatment of lightly-infested carcasses is at present under consideration.

B. Measures taken to spread the knowledge of Hygiene and Sanitation.

Owing to the absence on leave of the Medical Officer (Health), and pressure of work in other directions, but little progress has as yet been achieved in this field. Health teaching and propaganda was mainly confined to schools, and to groups of persons in areas visited by outbreaks of infectious disease.

Posters and pamphlets provided by the South African Red Cross Society were distributed.

C. Training of Personnel.

The training of African Nurses and Midwives is conducted at the Ainsworth-Dickson Nursing School, attached to the Raleigh Fitkin Memorial Hospital at Bremersdorp, which was the first hospital registered in the High Commission Territories as a Training Hospital for the Nursing Certificate of the new Nursing Council.

The number of students undergoing training was as follows:-

4th year Nursing students	5
3rd year Nursing students	6
2nd year Nursing students	7
1st year Nursing students	2
	20
2nd year student-midwives	2

Two students presented themselves for the final examination of the Council and one passed.

For those who are unable to attain the standard necessary for registration as Nurses under the Council, local examinations are held by the Medical Department, and five students passed this examination during the year.

IV. MATERNITY AND CHILD WELFARE.

(a) Mbabane, Pigg's Peak and Mankaiana Districts.

40 Europeans and 593 Africans attended the weekly ante-natal clinic at Mbabane Hospital, and 276 deliveries were conducted, as compared with 299 in 1949. 824 infants and 80 mothers received attention at the Child Welfare Clinic at Matapha.

Maternity cases treated at Health Centres are shown in the following table:-

By the end of the year a new 29-bedded African Female Ward (Ward I) was ready for occupation, while at the same time the existing African Female Ward (14 beds) was under reconstruction and in the process of conversion into an African Maternity Block. At this stage the overall accommodation at the Hospital was increased by 15 beds.

Daily average number of in-patients (European)	1.2
Daily average number of in-patients (Eurafrican)	1.1
Daily average number of in-patients (African)	72.2

The reduction in the density of overcrowding as compared with previous years is due to restriction of admissions from the Manzini District, and the limitation of maternity cases to primiparae and emergencies, while building operations were in progress.

Staff.

- 2 Medical Officers
- 3 European Nursing Sisters
- 1 Dispenser-Storekeeper-Radiographer
- 1 Hospital Assistant
- 1 African Dispenser
- 13 African Nurses
- 1 Dispensary Orderly
- 1 Out-patient Attendant
- 8 Ward Attendants.

	1944	1945	1946	1947	1948	1949	1950
Admissions	1642	1898	2287	2217	2210	2337(76)	1966(88)
Births	62	50	41	28	51	55(-)	57(1)
Confinements	134	152	170	303	339	299(18)	276(27)
Operations	130	176	215	193	297	398(70)	441(116)
In-patients (New cases)	9001	11403	8916	8547	8945	9422(1647)	12893(2712)
Out-patients (Re-attendances)	1043	838	3913	6953	9173	11472(3022)	14059(3356)

(Note: European cases, which are included in the totals, are shown in brackets).

A noteworthy feature of the work at Mbabane Hospital has been the progressive increase in European out-patient attendances since 1946, indicated in the following table, in which corresponding figures for Bremersdorp and Hlatikulu in 1950, are included for purposes of comparison.

	Average No. per month					
	New Cases		Re-attendances		New Cases	
	Male	Female	Male	Female	Officials	Non-official
Mbabane						
1946	53.2	56.9	33.9	51.3	-	-
1947	55.3	54.6	54.5	54.3	-	-
1948	61.1	57.4	68.2	82.1	19.6%	80.3%
1949	86.1	77.6	67.6	106.6	18.7%	81.3%
1950	125.5	102.2	136.5	142.5	18.7%	81.2%
1950 Bremersdorp	55.5	51.6	33.4	21.2	4.6%	95.3%
1950 Hlatikulu	19.6	15.9	20.6	12.0	26.7%	73.2%

The following works were undertaken by the Public Works Department during the year as a charge against Colonial Development and Welfare Fund Scheme No. D. 1085:-

Completed. (a) An African Female Ward, containing 29 beds and sub-divided into three sections, complete with dressing room, sluice room, pack store, linen room, lavatories (3), bathrooms (2), and shower.

(b) Extensions and alterations to the Outpatient Block, comprising a waiting room, African consulting room, examination room, dressing room, Dispensary, drug store, laboratory, European consulting rooms (2), Clerk's office and out-patient lavatories.

Under Construction. (a) An African Maternity Block, containing 3 wards of 9, 4 and 2 beds respectively, a labour room, duty room, pack store, linen store, sluice room, bathroom and lavatories (2).

(b) A 6-bedded Isolation ward, complete with sluice room, bath room, pack store and W.C.

(c) A unit containing a dressing room, sluice room, bath room and W.C. for the existing children's ward which is to be improved and redecorated.

(d) Construction of boiler house and installation of steam plant.

(e) A block, containing the operating theatre, sterilizing room, anaesthetic room, surgeons and sisters change room, and X-ray unit.

The annex consisting of four cement block rondavels which was erected for the accommodation of out-patients is to be utilised for staff quarters.

(b) Hlatikulu Hospital.

Number of beds (European)	8
Number of beds (Eurafrican)	3
Number of beds (African)	30
Number of cots (African)	3

Daily average number of in-patients (European)	1.5
Daily average number of in-patients (Eurafrican)	0.4
Daily average number of in-patients (African)	63.6

Staff.

- 2 Medical Officers
- 3 European Nursing Sisters
- 1 European Hospital Assistant-Dispenser
- 1 Hospital Assistant
- 11 African Nurses
- 1 Dispensary Orderly
- 4 Ward Attendants

	1943	1944	1945	1946	1947	1948	1949	1950
Admissions	1324	1680	1762	2245	1647	1313	1483 (94)	1814 (104)
Deaths	25	35	35	46	43	50	56 (4)	59 (4)
Confinements	48	98	120	150	188	198	202 (22)	159 (8)
Operations	151	153	199	112	256	241	242	258 (43)
Out-Patients (new cases)					6955	5169	4414 (427)	5676 (421)
Out-Patients (re-attendances)		8026	9146	12145	2342	2894	3549 (493)	2803 (392)

	1946	1947	1948	1949	1950
Admissions	141	113	81	89	175
Out-patients (new cases)	333	47	79	79	88
Re-attendances	2285	128	147	395	124
Daily average No. of In-Patients	3.3	3.4	2.7	4.18	5.0

(e) Dispensaries (Health Centres).

Figures for attendances at the under-mentioned stations are given in the following table:

Cases treated at Government Health Centres.

Name of Health Centre	In-Patients	Out-Patients			
		New Cases		Re-attendances	
		E	N.E.	E	N.E.
Horo	-	1	3150	-	495
Hebron (4 months)	-	-	390	-	245
Government Farm	-	-	1354	-	640
Goedgegun	-	391	2734	191	1432
Mhlotsheni	-	43	2073	14	1727
Hluti	-	174	1654	22	1207
Mahamba	-	-	2521	-	3560
Sipofaneni	-	4	1304	-	896
St. Philips	-	-	2692	-	3182
Our Lady of Sorrows	-	8	792	1	252
Totals	-	621	18664	228	13636
Grand Totals		19285		13869	
Mankaiana x	797	29	7147	54	3966

("E" = Europeans, "N.E." = Non-Europeans, "x" figures additional to those shown in the Return of Diseases for Government Hospitals (Appendix I)).

Arrangements have been made for the provision of three new Health Centres, in the lowveld, one of which will be erected at the Native Land Settlement at Hereford.

Comparative figures for the past 5 years are shown in the following tables:-

(i) Health Centres (General).

Year	New Out-Patients	Re-attendances	Total attendances	Confinements
1946	15201	4228	19429	68
1947	14109	8151	22260	47
1948	15347	14235	29582	34
1949	16893	12110	29003	38
1950	19285	13864	33199	34

The Sipofaneni and Hebron Health Centres were repaired and redecorated during the year.

(ii) Mankaiana Cottage Hospital (16 beds).

Year	Admissions	Out-Patients				Total attendances	Confinements
		E	N.E.	E	N.E.		
1946	957	25	7244	10	3135	10414	122
1947	724	36	5693	19	3999	9747	100
1948	762	43	6727	47	2853	9670	94
1949	736	38	7289	59	3030	10416	114
1950	797	29	7147	54	3966	11196	110

The average number of in-patients per day at Mankaiana Cottage Hospital was 24.7 in 1950, as compared with 25.8, 19.6 and 23.7 during 1947, 1948 and 1949, respectively.

(iii) Cases treated at Nazarene Mission Health Centres.

Health Centre		In-Patients	Out-Patients				No. of Confinements	
			New Cases		Re-attendances		E	N.E.
			E	N.E.	E	N.E.		
Stegi	X		240	4944	113	4514	-	100
Endingeni	X		-	941	-	895	-	36
Pigg's Peak	X		110	3663	35	1700	-	39
Mliba	X		-	816	-	1062	-	11
Mafuteni			-	750	-	1429	-	6
Bhekinkosi			-	291	-	625	-	7
Balegane			-	582	-	853	-	7
Malinda			-	1175	-	507	-	13
Ebenezer (Pilgrim Holiness Church)			-	1785	2	724	-	35
Totals			350	14947	150	12309	-	254

("X" = subsidized by Government).

The total attendances at Mission Health Centres was 27756, as compared with 25251 in 1949, and 24832 in 1948.

VI. PRISONS.

Routine weekly inspections of the prisons at Bremersdorp, Hlatikulu and Mbabane were carried out by the District Medical Officer. The general health of prisoners has been satisfactory, and no epidemics occurred. No deficiency or institutional diseases were reported. A minor alteration was made in the ration scale.

VII. SCIENTIFIC.

A summary of routine examinations performed at various institutions in the Territory is given in the following table:

	Public Health Laboratory Bremersdorp	Mbabane Hospital	Hlatikulu Hospital	Raleigh Fitkin Memorial Hospital
Blood Films	5526	379	233	1644
Blood Counts (Total)	127	-	109	57
Throat and Nasal Swabs (C.Diphtheriae)	86	-	-	-
Bacteriological Smears)		1931	281	45
Faeces)		205	403	49
Urines)	193	1311	517	4024
Sputa)		450	174	162
Serological tests for Syphilis	6433	-	-	-
Identification of adult mosquitos	864	-	-	-
Identification of mos- quito larvae	450	-	-	-
Identification of snails	790	-	-	-
Blood Biochemical tests	43	-	-	-
Blood and stool cultures	31	-	-	-
Agglutination Tests	227	-	-	-
Cerebrospinal fluids	-	3	-	-
Sedimentation rates	-	-	29	-
Totals 1950	14770	4279	1746	5981
Totals 1949	13688	3619	1220	4919
Totals 1948	15641	2865	1813	4912
Totals 1947	16428	2013	1427	3903

Since arrangements have been made for the "Modified Ide" and "Eagle" Tests, and other laboratory procedures to be carried out at Bremersdorp, the number of specimens which require to be sent for examination outside the Territory has been considerably reduced, and this has resulted in a substantial financial saving, and eliminated delay in the receipt of laboratory reports.

VIII. MEDICO-LEGAL WORK, ETC.

	Mbabane Pigg's Peak & Mankaiana District	Hlatikulu District	Manzini & Stegi District	Total
Post-Mortem Examinations	25	32	27	84
Examinations for Assault etc	35	97	195	327
Examinations for Tax Exemption	87	113	41	241
Totals	147	242	263	652

I should like to record my appreciation of the loyal and devoted manner in which the medical staff of this Territory has carried out its duties during a year in which there has been an expansion of work in many fields.

DIRECTOR OF MEDICAL SERVICES.

PUBLIC HEALTH LABORATORY - BREMERSDORP.A. STAFF.

In October, the African Malaria Assistant Staff was increased by two new members; this increase was necessitated by the extended malaria control programme of 1950/51. Of the present total of ten Native Malaria Assistants, nine are now stationed in rural areas throughout the territory.

B. MALARIA.

Climatic Conditions: The average rainfall for the years 1949 and 1950 is shown in Table I.

TABLE I: AVERAGE MONTHLY RAINFALL 1949 and 1950.

	<u>1949</u>	<u>1950</u>
January	3.7	3.3
February	7.3	4.5
March	2.6	0.9
April	2.0	1.3
May	1.6	0.4
June	1.3	0.3
July	0.0	0.3
August	0.1	1.4
September	2.8	0.0
October	1.9	1.4
November	6.5	2.3
December	6.0	9.8
	<u>35.8</u>	<u>25.9</u>

As can be seen, except for early spring rains (November and December 1949), the rainfall during the Transmission Season 1950 was unusually low, and from March onwards, negligible. Malaria vector breeding was naturally influenced by this semi-drought condition; except in the case of hyperendemic areas, situated along-side perennial bushveld rivers, the average density of *A.gambiae* was extremely low, and catches in our control (unsprayed) areas never exceeded two per hut per single month.

Malaria Incidence. The above-mentioned climatic conditions naturally bore an influence upon the incidence of malaria amongst the population; incidence was further lowered through the reduction of vector numbers, brought about by the extensive malaria control measures conducted by our department. In comparison with that of previous years, malaria incidence during 1950 was consequently low. Table II represents the number of cases, confirmed by laboratory examination as parasite positive. The blood slides were sent in to us from our field staff and from local hospitals and health centres during the year. It has to be remembered that these figures do not represent the actual case incidence of malaria occurring in the territory throughout the year, since:

- (i) not all cases of malaria come to our notice;
- (ii) not every case exhibiting a positive blood-slide can be regarded as suffering from a clinical attack of malaria.

However, since these records have been kept over a number of years, the table reflects the general malaria position in Swaziland, and serves well as a means of comparison.

TABLE II: MALARIA CASE INCIDENCE.

	<u>1946</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>1950.</u>
January	250	160	515	180	86
February	210	250	559	216	90
March	1280	450	652	424	276
April	2500	445	446	352	213
May	1350	310	392	505	308
June	440	260	194	260	142
July	200	130	65	35	39
August	130	70	61	85	48
September	100	40	60	113	7
October	150	60	84	98	16
November	140	30	105	73	32
December	100	160	77	103	38
	<u>6850</u>	<u>2365</u>	<u>3210</u>	<u>2444</u>	<u>1295</u>

In studying the above totals, consideration must be taken of the fact that malaria in Swaziland shows a great deal of yearly fluctuation. It would be premature to assume that the drop in malaria incidence since the year 1946, must be ascribed entirely to malaria control work, especially if one remembers that the transmission seasons of the past two years have been unusually mild. Further observation, over a number of years will be necessary in order to ascertain whether the control work, which consists mainly of anti-adult measures, will be effective in the ultimate eradication of malaria from Swaziland.

Malaria Control. In continuation with the experiments with residual insecticides started in 1948/49, the field was greatly extended during this year. The areas chosen for the transmission season 1949/50 consisted of highly endemic and endemic bushveld areas, and of middleveld areas with more-or-less epidemiological conditions. The total areas treated by hut-spraying comprised almost half of the malarious areas in Swaziland, approximately 2,500 square miles. At the beginning of the transmission season, the interiors of nearly 23,000 huts were treated with one or other of the residual insecticides (D.D.T emulsion or wettable D.D.T). The object was to ascertain the effect of this single spray treatment, on the malaria incidence of a rural population. The results of this work were submitted in a paper "Field Experiments with D.D.T Emulsion and Wettable D.D.T, with Special Reference to Malaria Incidence in Swaziland during the Transmission Season 1949/50".

Further to these field experiments, a rigid control of the Bremersdorp township was carried out throughout the season, as in previous years. Control measures consisted of the spraying of houses with D.D.T, and of the treatment of all rivers and standing waters with a 27½% D.D.T emulsion diluted in 1 in 300. In the Stegi township, all houses were sprayed. In Mbabane and Mankaiana, gaols and hospitals were sprayed.

Further Control Work. In preparation for the 1950/51 malaria control programme, huts in practically all accessible malarious areas were counted in the months October and November, and it is hoped that the total of 30,000 will be treated with a residual insecticide. It is further intended to re-spray certain of our hyperendemic bushveld areas at some later stage of the season. This is considered essential since, during the season 1949/50, the population (especially infants), in hyperendemic areas after a single spray-treatment with residual insecticide showed quite a high malaria incidence, despite the fact that malaria vectors were not found inside the huts. The repeated D.D.T application during this season will enable us to ascertain whether or not

malaria incidence can be further controlled in these areas. Whether anti-adult measures alone will be an effective malaria control in hyperendemic areas, is still a matter of controversy, however we hope that the results of our 1950/51 experiments will contribute towards the solution of this problem. We are hopeful that the additional funds, necessitated by the expansion of our experiments, will be made available to us.

During the months October to December, a survey was also carried out on the bloods of 600 children from various malarious areas, for the presence of malaria parasites, these figures being essential for the evaluation of parasite-positive cases during the coming transmission season.

C. LABORATORY. During the year 1950, the routine work was increased quite considerably. Specimens previously sent to the South African Institute for Medical Research, are now submitted by all hospitals and health centres in the territory to this laboratory for examination.

Statistics. The following is a detailed account of the laboratory work carried out during the year 1950:

1. Syphilis - "Modified Ide" and "Eagle" Tests	6433
2. Malaria - Blood slide examinations	
(a) sent in from hospitals and health centres	1151
(b) sent in from field staff, in connection with spraying experiments	4375
3. Typhoid, Paratyphoid, Rickettsiosis and Brucellosis - agglutination tests	227
4. Diphtheria - throat swab cultures	86
5. Enteric Group of Organisms - blood and stool cultures	31
6. Full Blood Counts	127
7. Blood Biochemical Tests	43
8. Smears, Stools and Urines - bacteriological and routine examinations	193
9. Entomological examinations	
(a) identification of adult mosquitoes	864
(b) identification of mosquito larvae	450
(c) identification of snails	790
	14770

During July, Miss J. Bredell, Laboratory Assistant, was sent to the South African Institute for Medical Research in order to enable her to become acquainted with recent methods as used in bacteriological and serological examinations at the Institute. It is hoped to repeat these visits annually, as it is considered most essential that we keep in contact with recent advances in the field of Clinical Pathology technique.

Syphilis. With regard to the subject of Syphilis, it is worthwhile mentioning that of the 6,433 sera tested, 2,186 or 37.1% gave a positive or doubtful reaction to the "Eagle" flocculation test. The bloods were taken from natives attending hospitals or health-centres, so that it is obvious that the rather high incidence of sero-positive cases (37.1%), is not a representation of Syphilis among the Swazi population in general.

Training Course. During the month of August, a special training course in elementary methods and techniques of Clinical Pathology was conducted by the Malaria Medical Officer. This course was attended by three Africans from the staffs of Government Hospitals, one from the Raleigh Fitkin Memorial Hospital, and by one Native Malaria Assistant from this Department. It is felt that a course of one month only is too brief a period to give full benefit on this vast and rather complicated subject.

Visit of Professor Cambournac to Swaziland. During May, Professor Cambournac, Director of the Malaria Section of the World Health Organisation, paid a visit to the territory. All problems related to malaria control and research were discussed with him, and our previous reports and papers placed at his disposal. As a result of these discussions, the Malaria Medical Officer received a personal invitation to attend the World Congress on Malaria at Kampala.

Mr. van Eeden, Health Inspector. In conclusion of this report, I should like to express my appreciation of the assistance Mr. van Eeden has given to the Malaria Department, in his supervision of all field work.

PUBLICATIONS. During 1950 the following paper was submitted for publication in the East African Journal:

"Field Experiments with D.D.T Emulsion and Wetttable D.D.T, with Special Reference to Malaria Incidence in Swaziland".

GOVERNMENT HOSPITALS

RETURN OF DISEASES AND DEATHS (IN-PATIENTS).

FOR THE YEAR 1950.

	Cases re- maining in hospital from previous year		Total Admission		Total Deaths		Total Cases Treated		Remaining in hosp- ital at end of year		Out- patients	
	E	A	E	A	E	A	E	A	E	A	E	A
1. EPIDEMIC, ENDEMIC & INFECTIOUS DISEASES:												
Enteric Group:												
(a) Typhoid Fever		1	1	36	-	1	1	33	-	4	6	1
(b) Paratyphoid A.				1				1				
(c) Paratyphoid B.				11				11				
(d) Type not defined												
2. Typhus (Tick Typhus)			1				1	-			10	1
3. Relapsing Fever												
4. Undulant Fever											1	
5. Malaria												
(a) Tertian				1				1				10
(b) Quartan												
(c) Aestivo-autumnal		2	5	49	2	5	51			8	64	
(d) Clinical				38	1		37		1	21	89	
(e) Cachexia												
(f) Blackwater												
6. Smallpox												
Alastrim												
7. Measles		2	1	19			1	20		1	2	40
8. Scarlet Fever												
9. Whooping Cough		5		40		4		45			16	370
10. Diphtheria				11		1		10		1		
11. Influenza			9	119			9	119			232	798
12. Miliary Fever												
13. Mumps				2				2			2	9
14. Cholera												
15. Epidemic diarrhoea												
16. Dysentery												
(a) Amoebic		4	7	85		5	7	87		2	15	53
(b) Bacillary		3	2	62		4	1	63	1	2	45	276
(c) Undefined or due to other causes				19				19				
Total carried forward	-	17	26	493		18	25	499	1	11	358	1711

E = EUROPEANS

A = AFRICANS

DISEASE	Cases re- maining in hospital from pre- vious year		Total Admission		Total Deaths		Total Cases Treated		Re-maining in hospital at end of year		Out- Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
Total brought forward	-	17	26	493	1	18	25	499	1	1	358	1711
1. EPIDEMIC, ENDEMIC & INFECTIOUS DISEASES: (Contd)												
7. Plague												
(a) Bubonic												
(b) Pneumonic												
(c) Septicaemic												
(d) Undefined												
8. Yellow Fever												
9. Spirochaetosis ictero- aemorrhagica												
10. Leprosy				3				3				7
11. Erysipelas												
12. Acute Poliomyelitis												
13. Encephalitis Letharg- ica												
14. Epidemic Cerebro- spinal Fever												
15. Other Epidemic Dis- eases											16	
(a) Rubeola (German measles)				3				3			2	2
(b) Varicella (Chicken pox)											49	31
(c) Kala-azar												
(d) Phlebotomus Fever												
(e) Dengue												
(f) Epidemic Dropsy												
(g) Yaws				1				1				
(h) Trypanosomiasis												
16. Glanders												
17. Anthrax												
18. Rabies												
19. Tetanus												
20. Mycosis												
21. Tuberculosis, Pulmonary & Laryngeal				39		6		34		5		94
22. Tuberculosis of the Menin- ges or Central Nervous System				2		1		1		1		
23. Tuberculosis of the Intest- ines or Peritoneum				3				3				3
Total carried forward	-	17	26	544	-	25	25	544	1	17	425	1848

	Cases re- maining in Hospital from pre- vious year		Total Admission		Total Deaths		Total Cases Treated		Remaining in hospit- al at end of year		Out- Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
Total brought forward	-	17	26	544	-	25	25	544	1	17	425	1848
34. Tuberculosis of the Vertebral Column				6				6				
35. Tuberculosis of bones and joints				3				3			2	
36. Tuberculosis of other organs												
(a) Skin or subcutan- eous Tissue (Lupus)				2				1		1		
(b) Bones				3				2		1		
(c) Lymphatic System			1	9			1	7		2		15
(d) Genito-urinary				2				2				
(e) Other organs												
37. Tuberculosis dis- seminated												
(a) Acute												
(b) Chronic												
38. Syphilis												
(a) Primary			1	14			1	14				100
(b) Secondary	-	17		133				142		8	4	490
(c) Tertiary	-	5		11				16			1	21
(d) Hereditary	-	2		22		1		21		3		137
(e) Period not indic- ated				5				5				185
39. Soft Chancre				5				5			2	12
40. (a) Gonorrhoea & its complications	-	1		91				91		1	35	898
(b) Gonorrhoeal Ophthalmia				22				22				5
(c) Gonorrhoeal Arthritis				3				3				
(d) Granuloma Venereum				2				2			1	
41. Septicaemia				3		2		3				
42. Other Infectious Diseases												
II. GENERAL DISEASES NOT MENTIONED ABOVE:												
43. Cancer or other mal- ignant Tumours of Stomach or Liver											1	2
44. Cancer or other mal- ignant Tumours of Buccal Cavity				1				1				
45. Cancer or other mal- ignant Tumours of the Per- itoneum Intestines, Rectum.			1		1		1	1			2	
Total carried forward	-	42	29	881	1	28	28	891	1	33	471	3715

DISEASE	Cases remaining in hospital from previous year		Total Admission		Total Deaths		Total Cases Treated		Remaining in hospital at end of year		Out-Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
Total brought forward	-	42	29	881	1	28	28	891	1	33	471	3715
6. Cancer or other malignant Tumours of the Female Genital Organs	-	1		5				4		1	2	
7. Cancer or other malignant Tumours of the Breast				1						1		
8. Cancer or other malignant Tumours of the Skin											4	1
9. Cancer or other malignant Tumours of Organs not specified	-			3		1		3			2	
XI. GENERAL DISEASES NOT MENTIONED ABOVE: (Ctd)												
50. Tumours, non malignant			1	19			1	19			32	4
51. Acute Rheumatism	-	1	1	11			1	12			25	136
52. Chronic Rheumatism				6				6			10	161
53. Scurvy (including Barlow's Disease)												1
54. Pellagra				11				11			1	17
55. Beri-beri												1
56. Rickets				1				1			1	
57. Diabetes (not including Insipidus)			1	1			1	1			2	
58. Anaemia												
(a) Pernicious				2				2				
(b) Other Anaemias & Chlorosis				3				3			18	72
59. Diseases of the Pituitary Body												1
60. Diseases of Thyroid Gland												
(a) Exophthalmic Goitre				2				2			1	4
(b) Other diseases of the Thyroid Gland												
Myxoedema				6				6			6	23
61. Diseases of the Para-Thyroid Glands												
62. Diseases of the Thymus												
Total carried forward	-	44	32	952	1	29	31	961	1	35	575	4136

DISEASE	Cases re- maining in hospit- al from previous year		Total Admission		Total Deaths		Total Cases Treated		Remaining in hospit- al at end of year		Out- Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
Total brought forward	-	44	32	952	1	29	31	961	1	35	575	4136
II. GENERAL DISEASES NOT MENTIONED ABOVE)Ctd).												
63. Diseases of the Sup- ra-Renal Glands												
64. Diseases of the Spleen												
65. Leukaemia (a) Leukaemia (b) Hodgkins Disease												
66. Alcoholism			1				1				9	
67. Chronic poisoning by mineral substances (lead, mercury etc)												
68. Chronic poisoning by organic substances (morphine, cocaine etc)												
69. Other General Diseases Auto-intoxication Purpura Haemorrhagica Haemophilia Diabetes Insipidus												
III. AFFECTIONS OF THE NERVOUS SYSTEM AND ORGANS OF THE SENSES:				1				1				
70. Encephalitis (not includ- ing Encephalitis Lethargica)				6		1		6				
71. Meningitis (not in- cluding Tuberculous Meningitis or Cerebro- spinal Meningitis)												
72. Locomotor Ataxia												
73. Other affections of the Spinal Cord												1
74. Apoplexy (a) Haemorrhage (b) Embolism (c) Thrombosis			1	1	1		1	1			1	2
75. Paralysis (a) Hemiplegia (b) Other Parlyses	-	1		4 2				5 2			1	2
76. General Parlysis of the Insane												
Total carried forward	-	45	35	967	2	30	34	977	1	35	587	4143

	Cases re- maining in hospital from pre- vious year		Total Admiss- ion.		Total Deaths		Total Cases Treated		Remaining in hospit- al at end of year		Out- patients.	
	E	A	E	A	E	A	E	A	E	A	E	A
Total brought forward	-	45	35	967	2	30	34	977	1	35	587	4143
II. AFFECTIONS OF THE NER- VOUS SYSTEM AND ORGANS OF THE SENSES (Ctd).												
7. Other forms of Mental alienation				3				2		1	2	11
8. Epilepsy				9				9			1	26
9. Eclampsia Convulsions (non-puerperal) 5 years or over												
10. Infantile Convulsions			2				2					
11. Chorea				2				2				
12. (a) Hysteria			1	7			1	7			33	8
(b) Neuritis	-	1		6				7			113	194
(c) Neurasthenia	-	1		1				2			20	60
13. Cerebral Softening												
14. Other Affections of the Nervous System such as Paralysis Agitans				3				3			6	
15. Affections of the Organs of Vision.												
(a) Conjunctivitis				72				71		1	41	396
(b) Trachoma												4
(c) Tumours of the Eye				1				1				6
(d) Other affections of the Eye				41				40		1	31	88
16. Affections of the Ear of Mastoid Sinus			5	33			5	33			127	244
IV. AFFECTIONS OF CIRCULATORY SYSTEM:												
17. Pericarditis												
18. Acute Endocarditis or Myo- carditis				1				1				4
19. Angina Pectoris											17	
20. Other Diseases of the Heart												
(a) Valvular-Mitral	-	1		5				6			5	5
Aortic				1				1				
Tricuspid												
Pulmonary												
(b) Myocarditis			4	24	2	8	4	24			6	19
Total carried forward	-	48	47	1176	4	38	46	486	1	38	990	5208

DISEASE	Cases re- maining in Hospital from pre- vious year		Total Admission		Total Deaths		Total Cases Treated		Remaining in hospit- al at end of year		Out- Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
total brought forward	-	48	47	1176	4	38	46	486	1	38	990	5208
1. Diseases of the Art- eries												
(a) Aneurism												1
(b) Arterio-Sclerosis				4		1		4			11	
(c) Other Diseases												
2. Embolism or Thrombosis (Non-cerebral)				2		2		2			2	
3. Diseases of the Veins												
Haemorrhoids				1				1			13	4
Varicose Veins	-	1		2				3			12	6
Phlebitis											1	2
4. Diseases of the Lym- phatic System												
Lymphangitis			2	17			2	17			7	21
Lymphadenitis, Budo (non specific)			1	30			1	30			11	38
5. Haemorrhage of undet- ermined cause				2				2			1	
6. Other affections of the Circulatory System				3				3				4
7. Diseases of the Nasal Passages - Adenoids												24
Polypus				3				3			1	
Rhinitis				6				6			11	2
Coryza				8				8			112	394
8. Affections of the Larynx												
Laryngitis			2	3			2	3			4	4
9. Bronchitis												
(a) Acute	-	2	7	111		3	7	112		1	124	999
(b) Chronic			3	22			3	21		1	11	120
10. Broncho-Pneumonia	-	2	1	123		9	1	123		2	3	62
11. AFFECTIONS OF THE RESPIRATORY SYSTEM (Ctd)												
12. Pneumonia												
(a) Lobar	-	2	6	77	1	2	6	79			3	31
(b) Unclassified			1	4			1	4			1	
13. Pleurisy, Empyema	-	3	2	25			2	28			7	34
14. Congestion of the lungs												
15. Gangrene of the lungs												
16. Asthmæ				21		1		21			31	51
total carried forward	-	58	72	1640	5	56	71	1656	1	42	1356	7005

DISEASE	Cases re- maining in hospital from pre- vious year		Total Admission		Total Deaths		Total Cases Treated		Remaining in hospit- al at end of year		Out- Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
total brought forward	-	58	72	1640	5	56	71	1656	1	42	1356	7005
6. Pulmonary Emphysema												
7. Other affections of the lungs	-	1	-	5		1		6			3	27
Pulmonary Spirochaet- osis												
8. DISEASES OF THE DIGESTIVE SYSTEM:												
8. (a) Diseases of Teeth or Gums.				1				1				
Caries			3	15			3	15			157	601
Pyorrhoea				6				6			5	271
(b) Other affections of the Mouth				2				2				21
Stomatitis			1	7			1	7			19	35
Glossitis etc				2				2			2	2
9. Affections of the Larynx Tonsils												
Tonsillitis			4	41		1	4	40		1	121	115
Pharyngitis				4				4			60	45
10. Affections of the Oesophagus				1				1			1	
11. (a) Ulcer of the Stomach				3				3			16	
(b) Ulcer of the Duodenum			2				2				3	1
12. Other affections of the Stomach												
Gastritis	-		5	7			4	7	1		48	115
Dyspepsia			1	5			1	5			23	462
13. Diarrhoea & Enteritis Under 2 years				57		1		57			41	430
14. Diarrhoea & Enteritis Two years and over			3	29			3	29			128	345
Colitis				1				1			1	3
Ulceration				2				2				
14a. Sprue											1	
15. DISEASES OF THE DIGESTIVE SYSTEM (Ctd)												
15. Ankylostomiasis												
16. Diseases due to Intest- inal Parasites												
(a) Cestoda (Taenia)			1	12			1	12			13	336
(b) Trematoda (Flukes)												
(c) Nematoda (other than Ankylostoma)												
total carried forward	-	59	92	1840	5	59	90	1856	2	43	1998	9814

DISEASE	Cases re- maining in hospital from pre- vious year		Total Admission		Total Deaths		Total Cases Treated		Remaining in hospit- al at end of year		Out- Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
Total brought forward	-	59	92	1840	5	59	90	1856	2	43	1998	9814
16.(c)Ascaris				3				3			4	130
Trichocephalus dispar.												
Trichina												
Dracunculus												
Strongylus												
Oxyuris											5	12
d)Coccidia												
e)Other parasites												
f)Unclassified												
17.Appendicitis			7	8		1	7	8			18	13
18.Hernia		1	7	8		1	7	9			4	7
19.(a)Affections of the Anus												
Fistula etc				11				11				7
b)Other affections of the Intestines											2	26
Enteroptosis											3	12
Constipation		1	1	10			1	11			28	228
20.Acute Yellow Atrophy of the Liver												
21.Hydatid of the Liver												
22.Cirrhosis of the Liver												1
a)Alcoholic												
b)Other forms												
23.Biliary Calculus											1	
24.Other affections of the liver-												
Abscess				6		1		6				1
Hepatitis		1	1	10			1	10		1	1	3
Cholecystitis			1	3		1	1	3			13	1
Jaundice												
25.Diseases of the Pancreas												
26.Peritonitis(of unknown cause)				3				3				
27.Other affections of the Digestive System.												
VII. DISEASES OF THE GENITO- URINARY SYSTEM(NON-VENEREAL)												
28.Acute Nephritis				1				1			2	2
29.Chronic Nephritis				1				1				1
Total carried forward	-	62	109	1904	5	63	107	1922	2	44	2079	10258

DISEASE	Cases re- maining in hospital from pre- vious year		Total Admission		Total Deaths		Total Cases Treated		Remaining in hosp- ital at end of year		Out- Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
total brought forward	-	62	109	1904	5	63	107	1922	2	44	2079	10258
0.(a)Chyluria												
b)Schistosomiasis	-	5		49		1		51		3	6	109
1.Other affections of the Kidneys												3
Pyelitis	1	-		1			1	1			9	12
2.Urinary Calculus			1				1				8	
3.Diseases of bladder Cystitis				17				17			38	400
4.Diseases of the urethra												
a) Stricture											3	
b) Other				1				1			4	6
5.Diseases of the Prostate												
Hypertrophy				2				2				1
Prostatitis			1	1		1	1	1			5	1
6.Diseases (Non-Venereal) of the Genital Organs of Man.												5
Epididymitis				7				7			1	
Orchitis				6				6				4
Hydrocele			1	7			1	7			3	34
Ulcer of the Penis			2	13			2	13			3	15
7.Cysts or other non- alignant Tumours of the ovaries											3	
8.Salpingitis	-	4	1	52			1	55		1	1	72
Abscess of the Pelvis												
9.Uterine Tumours (non- alignant)				7				6		1	1	1
10.Uterine Haemorrhage (non- puerperal)			3	4			3	4			11	34
11.(a)Metritis			4	9			4	9			1	4
b)Other affections of the female Genital Organs	-	1		8				9			13	39
Displacement of Uterus				12				11		1	2	52
Amenorrhoea				6				6			11	81
Dysmenorrhoea			1	4			1	4			15	128
Leucorrhoea				2				2			4	1
12.Diseases of the Breast (non-puerperal)												4
Mastitis			1	4			1	4			5	2
Abscess of Breast				16				16			4	8
III.PUERPERAL STATE:												
13.(a)Normal Labour	-	19	35	372			34	375	1	16	-	-
b)Accidents of Pregnancy			1	28		3	1	27		1	2	2
total carried forward	1	91	160	2532	5	68	158	2556	3	67	2232	11276

DISEASE	Cases re- maining in hospit- al from previous year		Total Admission		Total Deaths		Total Cases Treated		Remaining in hospit- al at end of year		Out- Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
total brought forward	1	91	160	2532	5	68	158	2556	3	67	2232	11276
II. PUERPERAL STATE (td)												
3. (a) Abortion			3	36		1	3	36			7	18
(b) Ectopic Gestation			1				1					
(c) Other accidents of Pregnancy			1	7		1	1	7			4	1
4. Puerperal Haemorrhage	-	1		3		1		4				
5. Other accidents of Parturition				3				3			1	
6. Puerperal Septicaemia				2				2				1
7. Phlegmasia Dolens				1		1		1				
8. Puerperal Eclampsia				3				3				
9. Sequelae of Labour				1				1			2	
10. Puerperal affections of the Breast	-	1		2				3			2	1
Ante-natal cases											49	1157
X. AFFECTIONS OF THE SKIN & CELLULAR TISSUES:												
51. Gangrene	-	1		5				6				
52. Boil				7				7			61	51
Carbuncle				8				7		1	6	13
53. Abscess			1	103		2	1	103			13	93
Whitlow				6				5		1	4	5
Cellulitis	-	2	3	73		1	3	75			25	91
54. (a) Tinea				1				1			20	43
(b) Scabies	-	1		28				29			10	421
55. Other Diseases of the Skin			1	40			1	40			116	416
Erythema				1				1			2	
Urticaria				1				1			23	43
Eczema				13				13			17	157
Herpes				4				4			3	10
Psoriasis				2				2				
Elephantiasis												1
Myiasis				1				1				
Chigoes												
Cutaneous Leishmaniasis												
XI. DISEASES OF BONES & ORGANS OF LOCOMOTION (OTHER THAN TUBERCULOUS):												
total carried forward	1	97	170	2883	5	75	168	2911	5	69	2597	13798

DISEASE	Cases re- mainin g in hospital from pre- vious year		Total Admission		Total Deaths		Total Cases Treated		Remaining in hospit- al at end of year		Out- Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
Total brought forward	1	97	170	2883	5	75	168	2911	5	69	2597	13798
66. Diseases of Bones Osteitis	-	3		23				24		2	6	12
67. Diseases of Joints Arthritis	-	2		14				15		1	18	56
Synovitis	-		1	16			1	16			11	29
68. Other Diseases of Bones Organs of Locomotion				9				8		1	19	19
I. MALFORMATIONS:												
59. Malformations Hydrocephalus				2				1		1		1
Hypospadias												
Spina Bifida				2		1		2				
II. DISEASES OF INFANCY:												
60. Congenital Debility				15		1		15				1
61. Premature Birth				2				2				1
62. Other affections of Infancy			1	7		1	1	7			3	4
63. Infant neglect (infants of or over three months)		1	1	41		13	1	42				69
III. AFFECTIONS OF OLD AGE:												
64. Senility Senile Dementia			1	6 1		4 1		6 1			2	2 1
IV. AFFECTIONS PRODUCED BY EXTERNAL CAUSES:												
65. Suicide by poisoning												
66. Corrosive poisoning (intentional)			1	1			1	1				
67. Suicide by Gas poisoning												
68. Suicide by Hanging or strangulation												
69. Suicide by Drowning												
70. Suicide by Firearms												
71. Suicide by Cutting or stabbing Instruments												
72. Suicide by jumping from a height												
Total carried forward	1	103	175	3022	5	96	173	2651	3	74	2656	13993

	Cases re- maining in hospital from pre- vious year.		Total Admission		Total Deaths		Total Cases Treated		Remaining in hosp- ital at end of year		Out- Patients	
	E	A	E	A	E	A	E	A	E	A	E	A
Total brought forward	1	103	175	3022	5	96	173	2651	3	74	2656	13993
73.Suicide by crushing												
74.Other suicides												
75.Food Poisoning Botulism				7				7				1
76.Attacks of poisonous animals											1	5
Snake Bite	-	1		21				21		1	3	4
Insect Bite				3				3			17	5
77.Other accidental poisonings	-	1	1	17		3	1	18			7	1
78.Burns (by fire)	1	3	1	44		5	2	42		5	5	85
79.Burns (other than fire)	-	1		29		1		29		1	10	44
IV.AFFECTIONS PRODUCED BY EXTERNAL CAUSES:(Ctd)												
80.Suffocation(Accidental)												
81.Poisoning by Gas (Accidental)												
82.Drowning (accidental)												
83.Wounds(by Firearms,war excepted)			1	3			1	3			2	
84.Wounds(by cutting or stabbing instruments)	-	5	1	156		2	1	158		3	34	241
85.Wounds(by Fall)	-	2	1	40				42	1		38	161
86.Wounds(in Mines or Quarries)												
87.Wounds(by Machinery)			2	13			2	13			9	19
88.Wounds(crushing e.g. railway accidents etc)			1	13			1	13			15	7
89.Injuries inflicted by animals,Bites,Kicks etc.	-	4	1	47		1	1	49		2	16	30
90.Wounds inflicted on Active Service												
91.Executions of civilians by belligerents												
92.(a)Over fatigue (b)Hunger or Thirst												
Total carried forward	2	120	184	3415	5	108	182	3449	4	86	2813	14596

[illegible]

METEOROLOGICAL OBSERVATIONS.SWAZILAND 1950.Station - Mbabane (Highveld).

Alt. 3,800 feet.

Month	Air Temperature °F				Rainfall	
	Mean Max	Mean Min	Actual Max	Actual Min.	Total	No. of days.
January	74.45	58.30	85.0	52.5	9.39	20
February	71.64	58.60	87.2	53.3	8.28	12
March	78.19	59.70	89.2	54.0	3.33	9
April	70.07	55.00	86.2	41.5	1.68	10
May	67.79	43.89	77.8	32.0	1.42	6
June	64.52	41.25	76.5	31.0	0.33	2
July	68.57	41.77	78.5	22.5	0.16	2
August	64.84	46.40	81.5	31.0	3.06	9
September	69.05	44.84	95.5	35.5	0.24	5
October	No Records				2.18	5
November	74.41	52.8	89.0	47.0	2.42	9
December	76.83	60.3	86.0	53.5	10.87	20
YEAR	70.9	51.1	95.5	22.5	43.36	109

/Average 56.46/

	Station - Bremersdorp (Middleveld)					
January	81.30	63.80	90.0	59.0	3.30	14
February	83.26	65.34	92.5	59.5	4.51	13
March	87.68	66.81	95.5	62.0	0.88	9
April	82.10	61.00	93.5	50.0	1.30	9
May	76.10	51.60	86.0	38.0	0.44	4
June	76.20	48.90	84.5	42.5	0.29	2
July	74.70	49.10	85.0	37.1	0.32	2
August	71.90	51.80	87.0	42.0	1.43	5
September	80.50	57.80	100.0	50.0	0.03	2
October	82.10	57.30	100.9	44.9	1.35	5
November	80.20	60.00	96.5	52.5	2.26	13
December	82.30	65.30	95.0	60.5	9.76	20
YEAR	79.8	58.2	100.9	38.00	25.87	98

/Average 33.78/

METEOROLOGICAL OBSERVATIONS.SWAZILAND 1950.Station - Hlatikulu (Highveld).

Alt. 3890 feet.

Month	Air Temperature °F				Rainfall	
	Mean Max	Mean Min	Actual Max	Actual Min	Total	No. of days.
January					0.00	-
February					2.55	8
March					4.83	12
April					4.97	8
May	Temperature readings were discontinued at the end of March 1947				0.31	2
June					0.26	2
July					0.17	1
August					2.29	9
September					0.17	4
October					3.16	6
November					2.26	12
December					8.01	21
YEAR					29.98	85

Average 45.85/

Station - Stegi (Lowveld)						
January	79.58	61.50	87.50	57.50	4.28	12
February	87.10	62.91	89.00	58.90	8.37	10
March	80.31	63.80	89.00	59.10	3.91	9
April	79.20	58.66	88.40	51.80	1.75	5
May	74.10	53.57	82.90	45.80	0.60	2
June	73.83	51.33	80.10	46.90	0.17	2
July	72.47	53.81	80.10	41.40	0.32	2
August	70.28	50.67	81.30	46.90	1.61	4
September	78.38	54.74	97.40	48.60	-	-
October	76.15	54.86	96.30	45.80	1.28	4
November	79.43	56.16	91.70	50.40	3.72	6
December	81.77	61.42	90.30	57.00	5.87	9
YEAR	77.7	56.9	97.40	41.40	31.88	65

Average 29.61/

